Complete Summary

GUIDELINE TITLE

Practice guidelines for the management of constipation in adults.

BIBLIOGRAPHIC SOURCE(S)

Folden SL, Backer JH, Maynard F, Stevens K, Gilbride JA, Pires M, Jones K. Practice guidelines for the management of constipation in adults. Glenview (IL): Association of Rehabilitation Nurses; 2002. 51 p. [199 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Constipation

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Prevention
Treatment

CLINICAL SPECIALTY

Family Practice
Gastroenterology
Geriatrics
Internal Medicine
Nursing
Nutrition

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To develop practice guidelines for the management of constipation in adults

TARGET POPULATION

Adult patients with constipation

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation

1. Assessment and detailed patient history
    - Patient´s description of bowel patterns
    - Evaluation of cognitive ability
    - Assessment of environmental factors (e.g., toileting patterns, toilet accessibility)
    - Assessment of cultural beliefs
    - Assessment of functional ability
    - Assessment of dietary habits and fluid intake as well as potential sources of fluid loss
    - Medication review and medical/surgical history
    - Objective measures (e.g., Constipation Assessment Scale and the Elderly Bowel Symptom Questionnaire)
2. Physical examination (assessment of physical function, oral examination, abdominal assessment, rectal examination, neurological evaluation, especially of anal reflex)
3. Additional evaluation including laboratory (fecal occult blood testing, thyroid function studies, serum electrolytes, serum glucose, and complete blood count); radiographic diagnostic testing. Referral for advanced testing may be indicated.
4. Differential diagnosis

Management

1. Counseling and management of toileting activities, including toileting habits, position, and facilities
2. Lifestyle factors, including dietary habits, dietary fiber, fluids, exercise and activity
3. Pharmacological treatment
    - Bulk-forming agents (e.g., psyllium hydrophilic muciloid [Metamucil])
    - Stool softeners (e.g., docusate sodium [Colace])
    - Saline laxatives

- Osmotic laxatives (e.g., lactulose [Cephulac], sorbitol liquid, magnesium sulfate)
- Stimulant laxatives (e.g., senna [Senokot])
- Suppositories and enemas (e.g., glycerin suppository, bisacodyl [Dulcolax], sodium/potassium phosphate enema [Fleet])

4. Patient education
5. Biofeedback techniques
6. Surgical treatment

MAJOR OUTCOMES CONSIDERED

- Incidence of constipation
- Risk for constipation
- Stool consistency and frequency

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A search was conducted using CINAHL and Medline databases for all applicable medical- and health-related articles published from 1968 through 1998. The following key words were used in the search: constipation research, adult constipation, constipation assessment, constipation prevention, constipation management, constipation intervention, constipation rehabilitation, constipation clinical trials, and laxative clinical trials. The search parameters included research and opinion articles; no limit was set as to the number of articles to be retrieved.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

1. Significant difference: no major design issues.
2. Significant difference: multiple design issues.
3. No significant difference.
4. Supportive evidence (no design issues).
5. Supportive evidence (design issues).
6. No supportive evidence.
7. Expert opinion: supportive
8. Expert opinion: nonsupportive

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The methodologist developed the code book format for displaying in table form the evidence from the literature upon which the practice guidelines were to be developed. Each table included a definition of constipation, the theory or framework developed for the study, the characteristics of the sample population--including inclusion and exclusion criteria, the type of study, methods and instruments used in the collection of data, treatment approaches, study results, and factors affecting internal and external validity.

The strength of the scientific evidence in each article was evaluated according to whether the studies were: experimental, with or without controls groups; quasi-experimental; nonexperimental (qualitative or case study); or descriptive. Each article was classified into one of the following categories: assessment, prevention, intervention, rehabilitation, or management. Of the 120 evidence tables, 44 addressed assessment, 19 addressed management of constipation, 43 addressed interventions, 9 dealt with prevention of constipation, 1 addressed rehabilitation, and 4 were classified as "other."

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The Board of Trustees of the Rehabilitation Nursing Foundation (RNF) appointed a panel of experts--the Bowel Guidelines: Constipation Panel. The guidelines panel appointed by the RNF first drafted a working definition of constipation and outlined a 6-step process for developing the guidelines and the adoption of the panel´s recommendations. The RNF Board approved the process.

After the evidence tables were completed, panel members wrote drafts for their respective sections. Every panel member reviewed each draft, after which conceptual areas for the development of assessment and treatment recommendations were identified. Once recommendations were drafted, they were reviewed, in some instances revised, and then approved unanimously by the panel.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

External expert reviewers were invited to comment on the proposed guidelines; many of their suggestions were incorporated into the final draft that was approved by the panel.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Assessment

Recommendation: Obtaining a detailed health and personal history of the person with acute constipation is the most essential step in identifying potential etiologic factors.

Evidence: Expert opinion, nonexperimental studies.

Recommendation: Treating people with chronic constipation requires an in-depth history of their bowel patterns, toileting habits, and dietary habits, as well as a detailed health assessment and medical and medication history.

Evidence: Expert opinion, nonexperimental studies.

Recommendation: Healthcare providers should ask patients how they define constipation, specifically as to frequency, character of stools, and associated symptoms.

Evidence: Expert opinion, nonexperimental studies.

Recommendation: A diet assessment to determine nutrient and fiber intake should be part of the health history. A follow-up to the usual diet assessment should include a 3 to 7 day prospective dietary record of pattern and intake. A quick method for assessing fiber intake per serving is as follows: fruit or vegetable = 1.5 g, refined grains = 1 g, and whole grains = 2.5 g.

Evidence: Expert opinion.

Recommendation: No further initial workup may be necessary in healthy adults presenting with recent onset constipation due to an identifiable acute etiologic factor (e.g., imposed immobility due to surgery, change in dietary or toileting habits, short term opioid use, or stress), and who meet all of the following criteria: under the age of 50 with no risk factors for colorectal cancer; a negative fecal occult blood and normal initial laboratory tests; a negative abdominal and rectal examination; and who have responded to initial therapy.

Evidence: Expert opinion, nonexperimental studies.

Recommendation: A comprehensive physical examination and appropriate laboratory tests should be given to people who have chronic constipation (persisting for 3 months or longer), or whose constipation does not have a readily identifiable etiology. The physical examination should include a digital examination. Fecal occult blood tests should be obtained on three separate bowel movements. Persons over the age of 50 and persons with colorectal cancer risk factors should be screened for colorectal cancer.

Evidence: Expert opinion.

Management of Constipation

Toileting Activities

Toileting Habits

Recommendation: Toileting habits should consist of the following:

1. Promptly respond to the urge to defecate.

   Evidence: Expert opinion.

2. Provide a consistent time for defecation, usually after a meal but that also takes into consideration the person´s usual time for defecation and his or her everyday living demands. Morning may be better than evening for defecation.

   Evidence: Expert opinion; nonexperimental and experimental studies.

3. Provide as much visual, olfactory, and auditory privacy as is possible.

   Evidence: Expert opinion.

Position

Recommendation: An upright position is recommended for the person who is defecating. If expelling feces is difficult, placing a footstool in front of the toilet or beside the commode, or manually pushing the legs toward the abdomen in bed-bound patients are ways to simulate a squatting position. Such positions facilitate defecation, especially in elderly patients and patients with Parkinson's disease.

Evidence: Expert opinion; experimental and nonexperimental studies.

Recommendation: If a patient is unable to sit when defecating, a left-side-lying position is recommended. Incontinence pads can be used to catch the feces.

Evidence: Expert opinion

Toilet Facilities

Recommendation: A toilet or bedside commode should be used for defecation. Every effort should be made to avoid the use of a bedpan.

Evidence: Expert opinion.

Recommendation: Toilet facilities may need to be wheelchair accessible. Persons with mobility impairments would benefit from a padded raised toilet seat with backrest and side rails.

Evidence: Expert opinion.

Lifestyle Factors

Recommendation: The adult diet should contain 20 to 35 g of fiber per day to maintain normal bowel function. Individuals should be encouraged to eat fiber from a variety of sources. The diet should include whole grains, fruits, vegetables, legumes, seeds, and nuts. Tolerance of gradual increases in fiber content should be evaluated. Fiber in the diet should be increased gradually to the recommended amounts. As fiber is increased, fluid intake must also be increased to 2 liters per day. The benefits of fiber and fluid intake may not be noted for several weeks, so it is important not to discontinue their inclusion in a bowel program prematurely.

Evidence: Expert opinion, experimental studies.

Recommendation: For patients on tube feedings, products containing dietary fiber based on 10-15 g/1000 calories should be used.

Evidence: Expert opinion, nonexperimental studies.

Other Lifestyle Considerations

Recommendations: An exercise program should be a component of nursing plans to prevent and treat constipation.

Evidence: Expert opinion, experimental studies.

Pharmacological Factors

Recommendation: If organic disease is not the cause of constipation, pharmacological treatment is appropriate on a short-term basis. It should be considered only after nonpharmacological interventions have failed.

Evidence: Strong consensus.

Recommendation: Pharmacological treatment should be short-term and time-limited until the goal of regular, timely, and complete evacuation is achieved.

Evidence: Retrospective and historical data document complications associated with long-term use of laxatives.

Recommendation: Orders for pharmacological treatment of constipation for individuals in healthcare institutions should be written as PRN and an assessment made to establish need for treatment and to direct appropriate use of different classes of laxative before instituting treatment.

Evidence: Consensus

Recommendation: In addition to evaluating whether patients learn and remember material taught in an education program, nurses need to assess how confident their patients are in their ability to actually perform the activities related to prevention or management of constipation. It is known that patients who lack confidence in their ability to perform a health behavior are less likely to adhere to it. How confident the patient is about performing a behavior can be assessed by simply asking, "How much confidence do you have in your ability to actually _____?" (Identify the specific behavior such as "increase dietary fiber"). A scale of 1 to 5 can be used to assess the confidence level.

Evidence: Expert opinion and non-experimental studies

Recommendation: Interventions are needed to enhance patients´ self-efficacy. This is especially important for patients with low self-efficacy, when some discomfort is associated with performing a health behavior, or when a lifestyle change is needed. Some ways to enhance a person´s self-efficacy are: (1) Ensure that the patient is successful in performing the activities by providing opportunities to practice the behaviors until they are mastered. (2) Provide patients the opportunity to observe others successfully performing the health behaviors. This may be further enhanced by providing patients with criteria for evaluating such performances, or by the nurse identifying the strengths and weaknesses of the behaviors. (3) Discuss with patients their positive qualities or capabilities that contribute to the likelihood of successful performance. Such appraisals of the patient´s capabilities, however, must be realistic. (4) Provide patients with stress management strategies to prevent or reduce fear and anxiety associated with the performance of difficult behaviors.

Evidence: Expert opinion, nonexperimental studies

CLINICAL ALGORITHM(S)

An algorithm is provided in the original guideline document for a stepwise approach to the management of constipation (see Appendix H in the guideline document).

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is specifically stated for each recommendation (see "Major Recommendations").

The strength of evidence underlying many of the guideline recommendations is based primarily on expert opinion and consensus, with only a few interventions being based on controlled studies.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate evaluation and management of constipation in adults

POTENTIAL HARMS

Adverse effects of pharmacological treatment

- Bulk-forming agents: Bloating is the most common short-term treatment side effect of bulk-forming drugs. While many fear intestinal obstruction from bulk-forming drugs and emphasize the importance of adequate hydration to minimize the risk, it has not been documented that this has occurred. Early studies indicated that the drugs were not palatable, causing decreased compliance with treatment. More recent formulations of the drug have added sugar and flavoring to appeal to consumer tastes. If used long-term, the drugs can be costly. Synthetic preparations are a less costly alternative.

  Bulk-forming agents should be avoided by patients with actual or suspected intestinal obstruction, low fluid intake, or swallowing difficulties. Bulk laxatives may be inappropriate for patients at the end-of-life because they are frequently unable to ingest sufficient fluids. They should also be used cautiously in patients with hypertensive disease or who are on a sodium-restricted diet.

- Stool softeners: Common side effects of stool softeners include fecal incontinence and loose stools.
- Saline laxatives: Common side effects include abdominal cramping, water stools, and the potential for dehydration and hypermagnesemia. Because of these side effects, saline laxatives should be used only as a last resort for end-of-life patients. Consensus opinion recommends that magnesium levels be carefully monitored in patients using magnesium salt products (magnesium citrate, magnesium hydroxide, and magnesium sulfate) because toxic accumulation of magnesium can occur in extracellular fluid. The Food and Drug Administration in 1998 also recommended package size restrictions and modifications in labeling of rectal enema sodium phosphate products because of reported serious side effects and reports of overdosing ("Laxative drug products," 1999). Labeling now must include warning statements regarding use with patients with a colostomy, congenital megacolon, imperforate anus, impaired renal function, heart disease, congestive heart failure, preexisting electrolyte disturbances, or in patients using diuretics that may affect electrolyte levels (Food and Drug Administration, HHS. Final Rule, 1999). Saline laxatives should be used with caution when a patient is concurrently on tetracyclines, and with patients with renal and cardiac disease.

- Hyperosmotic agents: Glycerin has minimal side effects and is one of the few laxatives that has been recommended as being safe for periodic use with children and infants. Lactulose has been known to cause transient flatulence, colic, abdominal cramps, diarrhea, and electrolyte imbalance such as hypernatremia, lactic acidosis, and acid base imbalance. While lactulose is often effective, patient compliance with routine use may be limited due to its unpalatable, overly sweet taste. More recent preparations have sought to improve the taste. Cost also may be a prohibiting factor because lactulose is presently one of the most expensive laxatives.
- Stimulant laxatives: It is not uncommon for stimulant laxatives to cause severe abdominal cramping. With prolonged use, these laxatives may contribute to the development of electrolyte imbalances and cathartic colon.

Potential harms of treatment of constipation in the elderly

- The frequent use of enemas, laxatives, and stool softeners is believed to lead to increased constipation in older adults
- Chronic use of laxatives, stool softeners, and enemas by elderly persons has been associated with several significant clinical disorders, including diarrhea, hypermagnesemia, life-threatening hyperphosphatemia, hypoalbuminemia, an increased risk of fecal incontinence and perianal soiling, and poor response to bowel preparation for barium enema.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

The strength of the evidence underlying many of the guideline recommendations is based primarily on expert opinion and consensus, with only a few interventions being based on controlled studies. This is not unusual since scientific evidence, based on well-controlled studies is, for many medical therapies, limited. Also, a systematic review of existing research to evaluate findings in relation to their practical use has not been conducted to date for many medical interventions.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: Guideline was not adapted from another source.

DATE RELEASED

2002

GUIDELINE DEVELOPER(S)

Association of Rehabilitation Nurses - Professional Association

SOURCE(S) OF FUNDING

Association of Rehabilitation Nurses

GUIDELINE COMMITTEE

Bowel Guidelines Constipation Panel

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Authors: Susan L. Folden, PhD, ARNP, CS; Jane H. Backer, DNS, RN, CNS; Frederick Maynard, MD; Kathleen Stevens, MS, RN, CRRN; Judith A. Gilbride, PhD, RD, FADA; Marilyn Pires, MS, RN, CRRN-A; Kathleen Jones, MS, RN, CNP

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Association of Rehabilitation Nurses Web site.

Print copies: Available from the Association of Rehabilitation Nurses, 4700 W. Lake Avenue, Glenview, IL 60025-1485. Phone: (800) 229-7530 / (847) 375-4710; Fax: (877) 734-9384; Email: info@rehabnurse.org.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on August 20, 2003. It was verified by the guideline developer on September 10, 2003.

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